

## FIGURE 1A

### Amino acid sequence of human CCR5 [SEQ ID NO: 1]:

1 MDYQVSSPIY DINYYTSEPC QKINVKQIAA RLLPPLYSLV FIFGFVGNML VILILINCKR  
N-Terminus Transmembrane Domain 1

61 LKSMTDIYLL NLAISDLFFL LTVPFWAHYA AAQWDFGNTM CQLLTGLYFI GFFSGIFFII  
LOOP 1 Transmembrane Domain 2 Loop 2 Transmembrane Domain 3

121 LLTIDRYLAV VHAVFALKAR TVTFGVVTSV ITWVVAVFAS LPGLIFTRSQ KEGLHYTCSS  
Loop 3 Transmembrane Domain 4 Loop 4

181 HFPYSQYQFW KNFQTLKIVI LGLVLPLLVM VICYSGILKT LLRCRNEKKR HRAVRLIFTI  
Transmembrane Domain 5 Loop 5

241 MIVYFLFWAP YNIVLLLNTF QEFFGLNNCS SSNRLDQAMQ VTETLGMTHC CINPIIYAFV  
Transmembrane Domain 6 Loop 6 Transmembrane Domain 7

301 GEKFRNYLLV FFQKHIAKRF CKCCSIFQQE APERASSVYT RSTGEQEISV GL  
C-Terminus

## FIGURE 1B

### Peptide fragments derived from human CCR5 that are used as target peptides:

N-terminal fragment [SEQ ID NO: 8]:

**MDYQVSSPIYDINYYTSEPCQKINVKQIAARLLPPL**

Loop 4 fragment [SEQ ID NO: 9]:

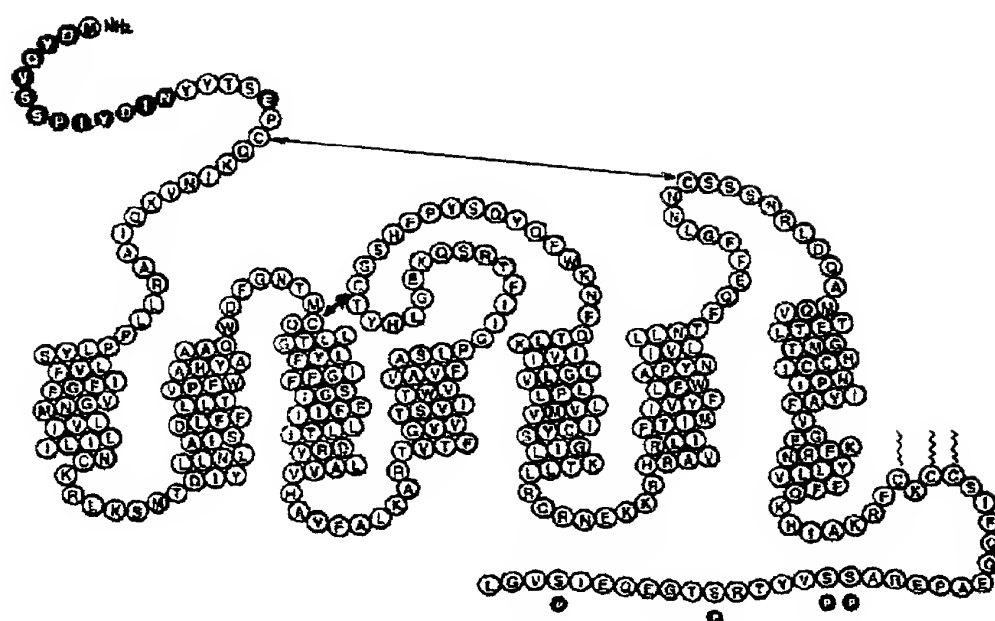
**TRSQKEGLHYTCSSHFPYSQYQFWKNFQTLKI**

Loop 6 fragment [SEQ ID NO: 3]:

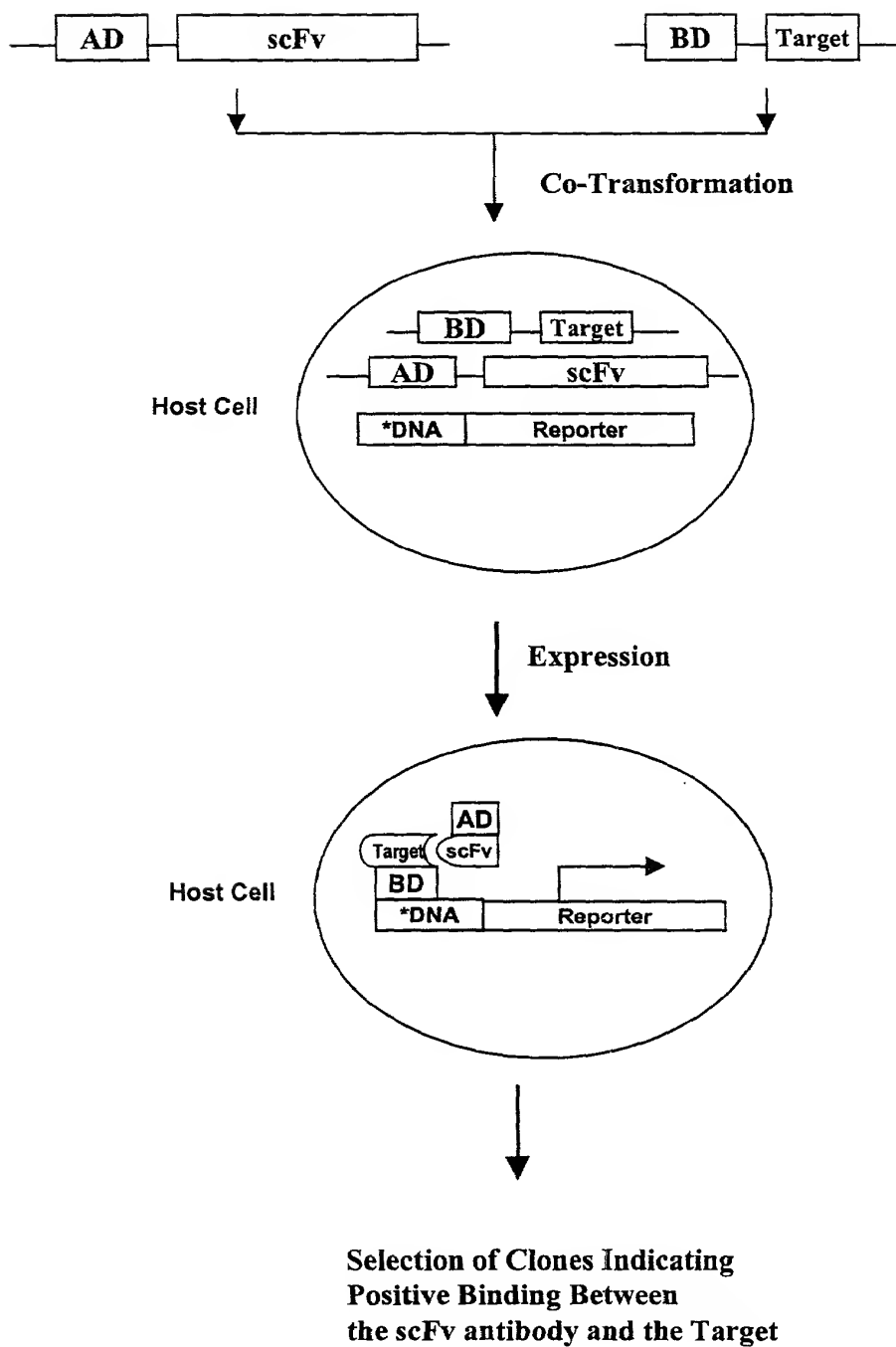
**EFFGLNNCSSSNRLDQAMQVTETLGMTHC**

**FIGURE 1C**

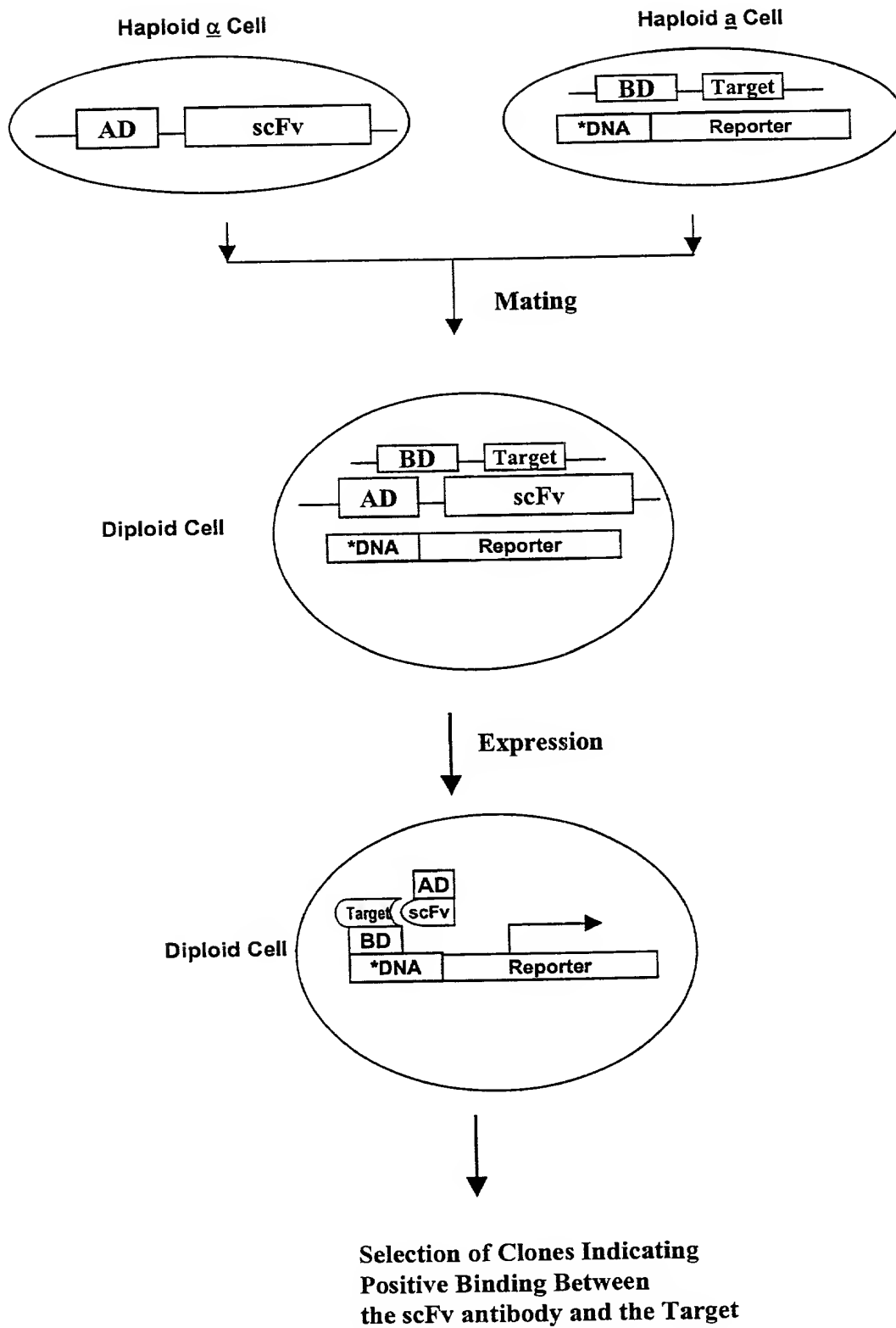
A model of the secondary structure of human CCR5:



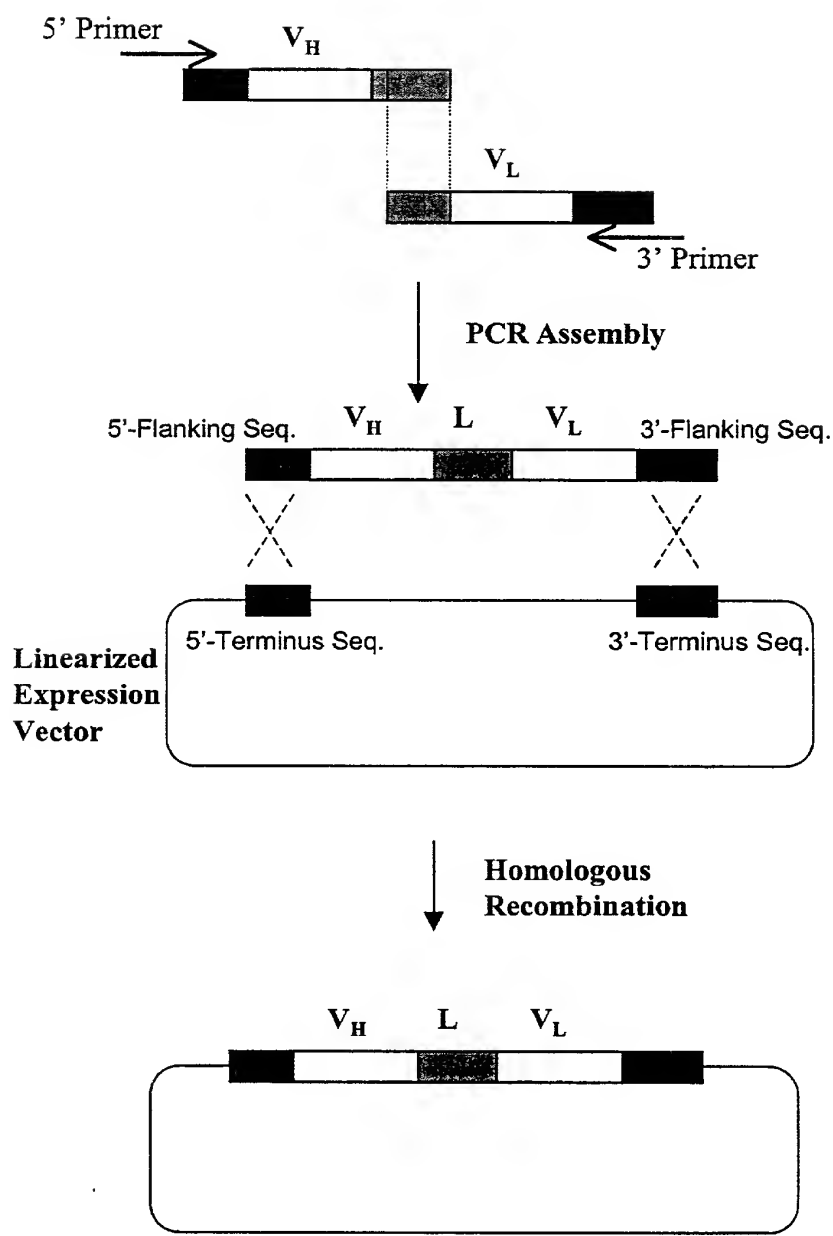
**FIGURE 2A**



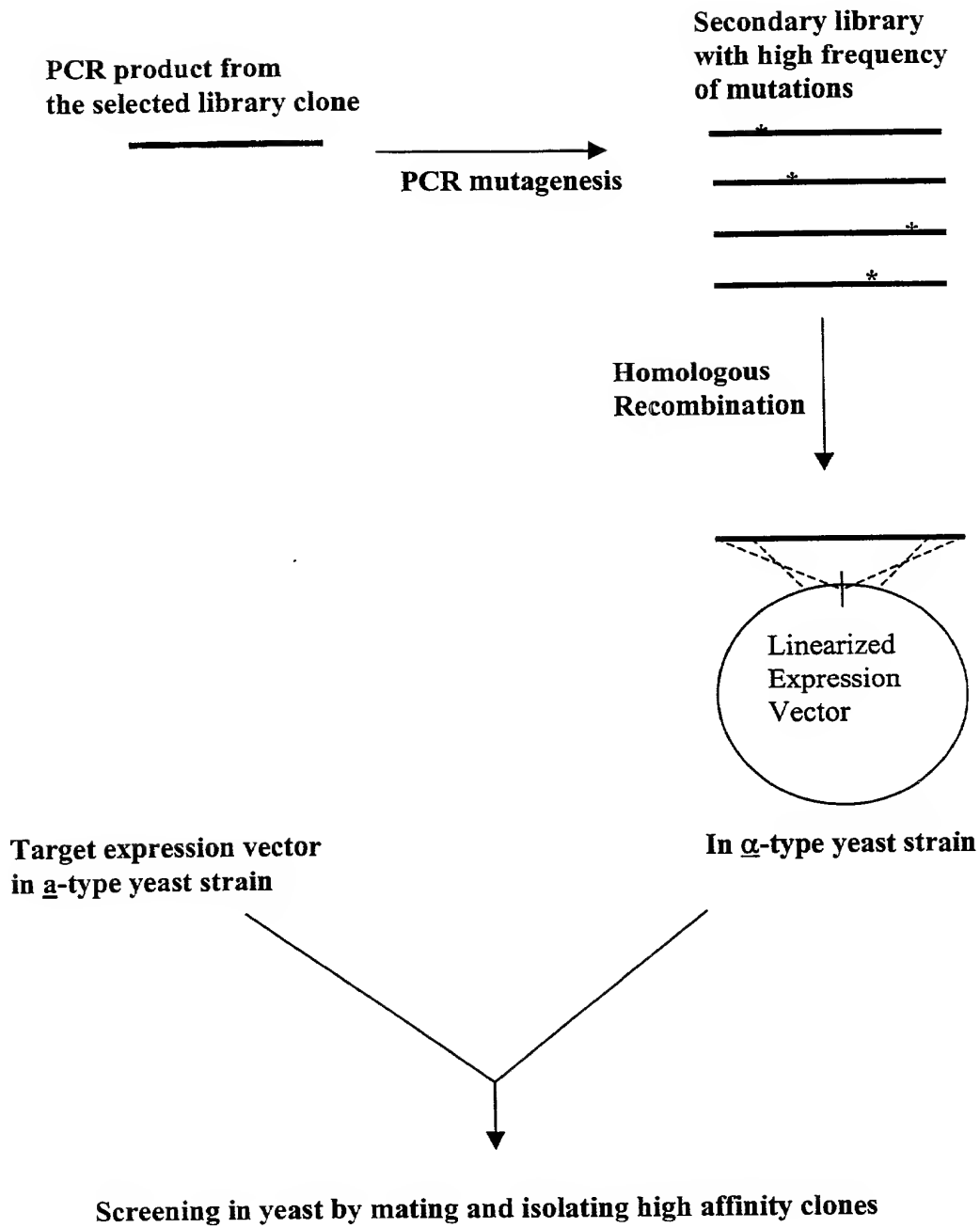
**FIGURE 2B**



**FIGURE 3**



**FIGURE 4**



## **FIGURE 5**

**DNA sequence of clone 15.186.35 scFv against N-terminus fragment of human CCR5 [SEQ ID NO: 16]:**

CAGGTTACCTTGAAGGAGTCTGGTCCTACGTTGGTGAACCCACACAGACCTCACGCTGACCTGCACCTTGTCTGGGTT  
CTCACTCAGCACTAGTGGAGTGAGTGTGGGCTGGATCCGTCAGCCCCAGGAAAGGCCCTTGAGTGGCTTGCAAGCATAA  
ATTGGAATGATGATAAGTGCTACAGCCCATCTCTGAAAAGCAGGCTCACCATCACCAAGgACACCCCCaAAAACCAGGTG  
GTCTTGAATGAGCAACATGGACCCTGCGGACACAGCCACATATTCCTGTGCACTCGATATGCCCCCATGATAGTGG  
CCCCAATCTTTTGATGCTTCTGATGTCTGGGGCCAGGGACAATGGTCACCGTCTCTTCAGGCGGTGGTGGATCAGGCG  
GCGGAGGATCTGGCGGAGGTGGCAGCGGTGGTGGAGGCAGTTCCTATGAGCTGATGCAGCTACCCCTCAGTGTCCGTGTCC  
CCAGGACAGACAGCCAGCATCACCTGCTCTGGAGATAATTGGGGGATAAATATGCCTGCTGGTATCAACAGAAGCCAGG  
CCGGTCCCCTGTGCTGGTCATTTATGGAGATAACAAGCGGCCCTCAGGGATCCCTGAGCGATTCTCTGGCTCCAACCTCTG  
GGAACACAGCCACTCTGACCATCAGCGGGACCCAGGCTATGGATGAGGCTGACTATTACTGTGAGGCGTGGGACACCAGC  
ACTGCTGTCTTCGGAAGTGGGACCAAGCTCACCGTCCTA

**Amino acid sequence of clone 15.186.35 scFv against N-terminus fragment of human CCR5 [SEQ ID NO: 17]:**

QVTLKESGPTLVKPTQTLTLTCTLSGFSLSVSGVSVGWIRQPPGKALEWLASINWNDDKCYSPSLKSRLTITKDTPKNQV  
VLAMSNMDPADTATYS CALDMPPHDSGPQSFDASDVWGPMTVTVSSGGGSGGGGSGGGGSGGGGSSYELMQLPSVSVS  
PGQTASITCSGDNLDKYACWYQKPKRSPVLVIYGDNKRPSGIPERFSGSNSGNTATLTISGTQAMDEADYYCQAWDTS  
TAVFGTGTKLTVL

**DNA sequence of clone 15.150.11 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 18]:**

CAGGTGCAGCTGCAGGAGTCGGGCCCAGGACTGGTGAAGCCTTCGGAGACCCTGTCCCTCACTTGCACTGTCTCTGGTGG  
CTCCATCGGTTCATGACTACTGGAGCTGGATACGGCAGCCCCAGGGGAGGACTGGAGTGGATTGGTTTCATCTTCTTCG  
ATGGGAGCACCAACTACAACCCCTCCCTCAACGGTCGAGTCACCATCTCACTCGACACGTCGAAGAATCAGCTCTCCCTG  
AGGCTGACCTCTGTGACCGCTGCGGACACGGCCGTGATTTCTGTGCGAGACTAAAGGGGGCGTGGTTATTGTCTGAACC  
CCCTTACTTCAGCTCCGACGGCATGGACGTCTGGGGCCAAGGGACCAGGTCACCGTCCCTCAGGCGGTGGTGGATCAG  
GCGGCGGAGGATCTGGCGGAGGTGGCAGCGGTGGTGGAGGCAGTAATTTTATGCTGACTCAGCCCCCTCAGCGTCTGGG  
ACCCCCGGGCAGAGGGTCAGCATCTCTTGTCTGGGAGCAGCTCCGACATCGGAAGTAATACTGTAAACTGGTACCAGCA  
ACTCCCAGGAACGGCCCCAACTCCTCATCTATAGTAATAATCAGCGGCCCTCAGGGGTCCCTGACCGATTCTCTGGCT  
TCAAGTCTGGCACCTCAGCCTCCCTGGTCATCAGTGGCCTCCAGTCTGAGGATGAGGCTGATTATTATTGTGCAGCATGG  
GATGAGAGCCTGAATGGTGTGGTGTTCGGCGGAGGACCAAG

**Amino acid sequence of clone 15.150.11 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 19]:**

QVQLQESGPGLVKPSSETLSLTCTVSGGSIGHDYWSWIRQPPGEGLEWIGFIFFDGSTNYNPSLNGRVTISLDTSKNQLSL  
RLTSVTAADTAVYFCARLKGAWLLSEPPYFSSDGMVDVWQGTTVTVPSSGGGSGGGGSGGGGSGGGGSGNFMLTQPPSASG  
TPGQRVISCSGSSSDIGSNVTNWNWYQQLPGTAPKLLIYSNNQRPSGVPDFRSGFKSGTSASLVISGLQSEADYYCAAW  
DESLNGVVFGGPR

## **FIGURE 5 (cont.)**

**DNA sequence of clone 15.150.12 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 20]:**

CAGGTGCAGCTACAGCAGTGGGGCGCAGGACTGTTGAAGTCTTGGGGAACCCTGTCCCTCACCTGCGCTGTCTCTGGTGCTCGTTTAGTGGTtATTATTGGAGCTGGATCCGCCAGCCCCAGGgAAGGGGCTGGAGTGGATTGGGGAGATCAATCATC GTGGAAGCACTACCTACAACCCGTCCCTCGACGGTCGAGTCACCATATCATTAGACACATCTACCAACCAGATCTCCCTT AAAC TGACCTCTATGACCGCCGCGGACACGGCCGTGTATTACTGTGCGAGGACAGTGGCTGGTACTAGTGACTACTGGGG CCAGGGAACCCTGGTCACCGTTTCCTCAGGGAGTGCATCCGCCCCAACGGGCGGTGGTGGATCAGGCGGCGGAGGATCTG GCGGAGGTGGCAGCGGTGGTGGAGGCAGTAAAACGACACTCACGCAGTCTCCAGCATTATGTCAGCGACTCCAGGAGAC AAAGTCAGCATCTCCTGCAAAGCCAGCCGAGACGTTGATGATGATGTGAAGTGGTACCAACAGAGACCAGGAGAAGCTCC TATTTTcATTATTGAAGATGCTACTACTCTCGTTcctGGAATCTCACCTCGATTcAGTGGCAGCGGGTATGGAACCGATT TTACCCTCACAATTAATAACATCGATTCTGAGGATGCTGCATATTATTTCTGTCTACAACATGATAATTTCCCGCTCACC TTCGGCGGAGGGACCAAGGTGGAGATCAAA

**Amino acid sequence of clone 15.150.12 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 21]:**

QVQLQQWGAGLLKSWGTLTLCAVSGASFSGYYWSWIRQPPGKGLEWIGEINHRGSTTYNPSLDGRVTISLDTSTNQISL KLTSMTAADTAVYYCARTVAGTSDYWGQGLVTVSSGSASAPTGGGGSGGGGSGGGGSGGGGSKTTLTQSPAFMSATPGD KVSISCKASRDVDDVDNWWYQRPGEAPIFIIEDATTLVPGISPRFSGSGYGTDFTLTINNIDSEDAAYYFCLQHDNFPLT FGGGTKVEIK

**DNA sequence of clone 15.150.24 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 22]:**

CAGGTCACCTTGAAGGAGTCTGGTCCTACGCTGGTGAAACCCACACAGACCCTCACGCTGACCTGCACCTTCTCTGGGTT CTCACTCAGAACTACTGGAGAGGGTGTGGGCTGGGTCCGTGAGCCCCAGGAAAGGCCCTGGAATGGCTTGCACTCATTT ATTGGGATGATGATAAGCGCTACAGCCCATCTCTGAAGAGCAGGCTCACCATCACCAAGGACACCTCCAAAAAGCAGGTG GTCCTTACAATGACCAACGTGGACCCAGCGGACACAGCCACCTATTACTGTACACACGAGCAATACTATTATGATACTAG TGGTCAGCCATACTACTTTGACTTCTGGGGCCAGGGCACCCCTGGTCACCGTCTCCTCAGGCGGTGGTGGATCAGGCGGCG GAGGATCTGGCGGAGGTGGCAGCGGTGGTGGAGGCAGTAACATCCAGGTGACCCAGTCTCCATCCTCCCTGTCTGCATCT GTAGGAGACAGAGTCACCATGACTTGCCGGGCGAGTCAGGACATTAGGAAGAATTTAAATTGGTATCAGCAAAAACCAGG GAAAGCCCCTAAGGTCTTGATCTACGATGCATCCGATTTGGAACAGGGATCCCATCAAGGTTcAGTGGAAGTGGATCTG GGACAGATTTTATCCTCACCATCAGCAGCCTGCAGCCTGAAGATATTGCAACATACTACTGTCAACAGTCTGATTATTTA CCGCTCACTTTTCGGCGGAGGGACCAAAGTGGATATCAAA

**Amino acid sequence of clone 15.150.24 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 23]:**

QVTLKESGPTLVKPTQTLTLCTFSGFSRLRTTGEVGVWVRQPPGKALEWLALIYWDDDKRYSPSLKSRLTITKDTSKKQV VLTMTNVDPADTATYYCTHEQYYDTSGQPYFDYWGQGLVTVSSGGGSGGGGSGGGGSGGGGSGGGGNIQVTQSPSSLSAS VGRVMTMTCRASQDIRKNLWYQKPKGAPKVLIIYDASDLETGIPSRFSGSGSGTDFILTISSLQPEDATYYCQQSDYL PLTFGGGTKVDIK



## **FIGURE 6**

### **DNA sequence of a variant of clone 15.186.35 scFv against N-terminus fragment of human CCR5 [SEQ ID NO: 24]:**

CAGGTACACCTTGAAGGAGTCTGGTCCTACGTTGGTGAAACCCACACAGACCCTCACGCTGACCTGCACCTTGTCTGGGTT  
CTCACTCAGCACTAGTGGAGTGAGTGTGGGCTGGATCCGTGAGCCCCAGGAAAGGCCCTTGAGTGGCTTGCAAGCATAA  
ATTGGAATGATGATAAGTGCTACAGCCCATCTCTGAAAAGCAGGCTCACCATCACCAGGACACCCCCaAAAAACCAGGTG  
GTCCTTGCAATGAGCAACATGGACCCTGCGGACACAGCCACATATTCCTGTGCACTCGATATGCCCCCATGATAGTGG  
CCGCAATCTTTTATGCTTCTGATGTCTGGGGCCCAGGGACAATGGTCACCGTCTCTTCAGGCGGTGGTGGATCAGGCG  
GCGGAGGATCTGGCGGAGGTGGCAGCGGTGGTGGAGGCAGTTCCTATGAGCTGATGCAGCTACCCCTCAGTGTCCGTGTCC  
CCAGGACAGACAGCCAGCATCACCTGCTCTGGAGATAATTTGGGGGATAAAATATGCCTGCTGGTATCAACAGAAGCCAGG  
CCGGTCCCCTGTGCTGGTCATTTATGGAGATAACAAGCGGCCCTCAGGGATCCCTGAGCGATTCTCTGGCTCCAACCTCTG  
GGAACACAGCCACTCTGACCATCAGCGGGACCAGGCTATGGATGAGGCTGACTATTACTGTGAGGCGTGGGACACCAGC  
ACTGCTGTCTTCGGAACCTGGGACCAAGCTCACCCTCCTA

### **Amino acid sequence of a variant of clone 15.186.35 scFv against N-terminus fragment of human CCR5 [SEQ ID NO: 25]:**

QVTLKESGPTLVKPTQTLTLTCTLSGFSLSVSGVSVGWIRQPPGKALEWLASINWNDDKCYSPLKSRLLTITKDTPKNQV  
VLAMSNMDPADTATYSCALDMPHDSGPQSFSDASDVWVGPTMTVTVSSGGGGSGGGSGGGSGGGSSYELMQLPSVSVS  
PGQTASITCSGDNLDGDKYACWYQQKPGRSPVLVIYGDNKRPSGIPERFSGSNSGNTATLTISGTQAMDEADYYCQAWDTS  
TAVFGTGTKLTVL

### **DNA sequence of a variant of clone 15.150.11 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 26]:**

CAGGTGCAGCTGCAGGAGTCGGGCCAGGACTGGTGAAGCCTTCGGAGACCCTGTCCCTCACTTGCACTGTCTCTGGTGG  
CTCCATCGGTCATGACTACTGGAGCTGGATACGGCAGCCCCAGGGGAGGACTGGAGTGGATTGGTTTCATCTTCTTCG  
ATGGGAGCACCAACTACAACCCCTCCCTCAACGGTCGAGTACCATCTCACTCGACACGTCGAAGAATCAGCTCTCCCTG  
AGGCTGACCTCTGTGACCGCTGCGGACACGGCCGTGTATTTCTGTGCGAGACTAAAGGGGGCGTGGTTATTGTCTGAACC  
CCCTTACTTCAGCTCCGACGGCATGGACGTCTGGGGCAAGGGACCACGGTCACCGTCTCCTCAGGCGGTGGTGGATCAG  
GCGGCGGAGGATCTGGCGGAGGTGGCAGCGGTGGTGGAGGCAGTAATTTTATGCTGACTCAGCCCCCTCAGCGTCTGGG  
ACCCCCGGGCAGAGGGTCAGCATCTCTTGTCTGGGAGCAGCTCCGACATCGGAAGTAATACTGTAACTGGTACCAGCA  
ACTCCCAGGAACGGCCCCCAAACCTCCTCATCTATAGTAATAATCAGCGGCCCTCAGGGGTCCCTGACCGATTCTCTGGCT  
TCAAGTCTGGCACCTCAGCCTCCCTGGTCATCAGTGGCCTCCAGTCTGAGGATGAGGCTGATTATTATTGTGCAGCATGG  
GATGAGAGCCTGAATGGTGTGGTGTTCGGCGGAGGAACCAAGGTGACCGTCCTA

### **Amino acid sequence of a variant of clone 15.150.11 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 27]:**

QVQLQESGPGLVKPSSETLSLTCTVSGGSIGHDYWSWIRQPPGEGLEWIGFIFFDGSTNYPNPSLNGRVTISLDTSKNQSL  
RLTSVTAADTAVYFCARLKGAWLLSEPPYFSSDGMVDVWVGQTTVTVSSGGGGSGGGSGGGSGGGSNFMLTQPPSASG  
TPGQRVVISCSGSSSDIGSNVTNWWYQQLPGTAPKLLIYSNNQRPSGVPDRFSGFKSGTSASLVISGLQSEADYYCAAW  
DES LNVGVVFGGGTKVTVL

**FIGURE 6 (cont.)**

**DNA sequence of a variant of clone 15.150.12 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 28]:**

CAGGTGCAGCTACAGCAGTGGGGCGCAGGACTGTTGAAGTCTTGGGGAACCCGTGTCCCTCACCTGCGCTGTCTCTGGTGC  
GTCGTTTAGTGGTtATTATTGGAGCTGGATTCCGCCAGCCCCAGGgAAGGGGCTGGAGTGGATTGGGGAGATCAATCATC  
GTGGAAGCACTACCTACAACCCGTCCCTCGACGGTCGAGTCACCATATCATTAGACACATCTACCAACCAGATCTCCCTT  
AAACTGACCTCTATGACCGCCGCGGACACGGCCGTGTATTACTGTGCGAGGACAGTGGCTGGTACTAGTACTACTGGGG  
CCAGGGAACCCCTGGTCACCGTTTCCTCAGGGAGTGTCATCCGCCCAACGGGCGGTGGTGGATCAGGCGGCGGAGGATCTG  
CGGGAGGTGGCAGCGGTGGTGGAGGCAGTGAAACGACACTCACGCAGTCTCCAGCATTATGTCTAGCGACTCCAGGAGAC  
AAAGTCAGCATCTCCTGCAAAGCCAGCCGAGACGTTGATGATGATGTGAACTGGTACCAACAGAGACCAGGAGAAGCTC  
TATTTTcATTATTGAAGATGCTACTACTCTCGTTCcTGGAACTCTACCTCGATTcAGTGGCAGCGGGTATGGAACCGATT  
TTACCCTCACAAATTAATAACATCGATTCTGAGGATGCTGCATATTATTTCTGTCTACAACATGATAATTCCCGCTCACC  
TTTCGGCGGAGGGACCAAGGTGGAGATCAAA

**Amino acid sequence of a variant of clone 15.150.12 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 29]:**

QVQLQQWGAGLLKSWGTL~~SL~~TCAVSGASFSGGYWSWIRQPPGKGLEWIGEINHRGSTTYNPSL~~DGRVTISL~~DTSTNQISL  
KLTSM~~TAADTAV~~YYCARTVAGTSDYWGQGT~~LT~~TVSSGSASAPTGGGGSGGGSGGGSGGGSETTLTQSPAFMSATPGD  
KVSISCKASRDVDD~~VD~~NWYQQRPG~~E~~APIFI~~IED~~ATTLPVPGISPRFSGSGYGTDFTLTINNIDSEDAAYYFCLQHDN~~FL~~PT  
EGGGTKVEIK

**DNA sequence of a variant of clone 15.150.24 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 30]:**

CAGGTCACCTTGAAGGAGTCTGGTCCCTACGCTGGTGAAACCCACACAGACCCTCAGCTGACCTGCACCTTCTCTGGGT  
CTCACTCAGAACTACTGGAGAGGGTGTGGGCTGGGTCCGT CAGCCCCCAGGAAAGGCCCTGGAATGGCTTGCACTCATTT  
ATTGGGATGATGATAAGCGCTACAGCCCATCTCTGAAGAGCAGGCTCACCATCACCAAGGACACCTCCAAAAAGCAGGTG  
GTCCTTACAATGACCAACGTGGACCCAGGCACAGCCACCTATTACTGTACACACGAGCAATACTATTATGATACTAG  
TGGTCAGCCATACTACTTTGACTTCTGGGGCCAGGGCACCCCTGGTCAACGCTCTCCTCAGGCGGTGGTGGATCAGGCGGCG  
GAGGATCTGGCGGAGGTGGCAGCGGTGGTGGAGGCAGTAACATCCAGGTGACCCAGTCTCCATCCTCCCTGTCTGCATCT  
GTAGGAGACAGAGTCACTATGACTTGGCCGGGCGAGTCAGGACATTAGGAAGAATTTAAATTGGTATCAGCAAAAACCAGG  
GAAAGCCCCTAAAGTCTGATCTACGATGCATCCGATTTGGAAACAGGGATCCCATCAAGGTTCAAGTGGAGTGGATCTG  
GGACAGATTTTATCCTCACCATCAGCAGCCTGCAGCCTGAAGATATTGCAACATACTACTGTCAACAGTCTGATTATTTA  
CCGCTCACTTTTCGGCGGAGGGACCAAAGTGGATATCAAA

**Amino acid sequence of a variant of clone 15.150.24 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 31]:**

QVTLKESGPTLVKPTQTLTLTCTFSGFSLRRTTGEGVGWVRQPPGKALEWLALIYWDDDKRYSPSLKSRLTITKDTSKKQV  
VLTMTNVDPADTATYYCTHEQYYDYDTSGQPYFYDFWQGQTLVTVSSGGGGSGGGSGGGSGGGSGNIQVTSPLSLAS  
VGDRVMTMCRASQDIRKNLNWYQKPGKAPKVLIDYASDLETGIPSRFSGSGSGTDFILTISLQPEDATYYCQSDYL  
PLTEGGGKVDIK

## FIGURE 7

Amino acid sequence alignment of variants of selected scFv antibodies against loop 6 of human CCR5

$V_H$  region:

```
15.150.11 QVQLQESGPGLVKPSSETLSLTCTVSGGSI--GHDYWSWIRQPPGEGLEWIGFIFFDGGSTNNYPSLNGRVTISLDTSKNQLSLRLTSVTAADTA VYFCARLKGAWLLSEPPYFSSDGMVWVGQGTIVTVSS CDR3
15.150.12 QVQLQWAGAGLLKSWGTLSLTCAVSGASF--SGYYWSWIRQPPGKGLEWIGIEINHRGSTTYNPSLDGRVTISLDTSTNQISLKLTSNTAADTA VYVCART-----VAGTSDYWGQGTIVTVSS
15.150.24 QVTLKESGPTLVKPTQTTLTCTCFSGFSLRTTGEVGWVRQPPGKALEWLALIYWDHDKRYSFSLKSLRLITTKDTSKKQVLTMTNVDPADTATYYCTHEQYYIDTSGQPY-----FDFWVGQGTIVTVSS
```

$V_L$  region:

```
15.150.11 NFMLTQPPS-ASGTPGQRVSI SCGSSS-DIGSNTVNWYQQLPGTAPKLLIYSNNQRP SGVDPDRFSGFKSGTSASLVI SGLQSEDEADYYCAAWDESLNGVWFGGGTKVTVL CDR3
15.150.12 ETTLTQSPAFMSATPGDKVSI SCKASR--DVDDD-VNMYQQRPGEPFIETEDATTLVPGISPRFSGSGYGTDTFTITINNIDSEDAAYFCLQHDNF--PLTFGGGTKVEIK
15.150.24 NIQVTQSPSSLSASVGDRTVMTCRASQ--DI-RKNLNWYQKPGKAPKVLIIYDASDLETGIPSRFSGSGSGTDFILTISSLQPEDIAIYYCQSD-YL-PLTFGGGTKVDIK
```

## **FIGURE 8**

### **Amino acid sequences of variable regions of clone 15.186.35 scFv against N-terminus fragment of human CCR5**

V<sub>H</sub> region [SEQ ID NO: 34]:

QVTLKESGPTLVKPTQTLTLTCTLSGFSLSLTSVSVGVWIRQPPGKALEWLASINWNDDKCYSPSLKSRLTITKDTKPNQV  
VLAMSNMDPADTATYS CALDMPPHDSGPQSFDASDVWGPMTMTVSS

V<sub>L</sub> region [SEQ ID NO: 35]:

SYELMQLPSVSVSPGQTASITCSGDNLDGKYACWYQQKPGRSVPLVIYGDNKRPSGIPERFSGSNSGNTATLTISGTQAM  
DEADYYCQAWDTSTAVFGTGTCLTVL

### **Partial amino acid sequences of variable regions of clone 15.150.11 scFv against loop 6 fragment of human CCR5**

V<sub>H</sub> region [SEQ ID NO: 36]:

QVQLQESGPGLVKPSETLSLTCTVSGGSIGHDYWSWIRQPPGEGLEWIGFIFFDGSTNYPNPSLNGRVTISLDTSKNQLSL  
RLTSVTAADTAVYFCARLKGAWLLSEPPYFSSDGMVWVGQGTTVTV

V<sub>L</sub> region [SEQ ID NO: 37]:

NFMLTQPPSAXGTPGQRVSI SCSSSSDIGSNTVNWYQQLPGTAPKLLIYSNNQRPSGVPDRFSGFKSGTSASLVISGLQ  
SEADYYCAAWDESLNGVVFGGG

### **Partial amino acid sequences of variable regions of clone 15.150.12 scFv against loop 6 fragment of human CCR5**

V<sub>H</sub> region [SEQ ID NO: 38]:

QVQLQQWGAGLLKSWGTLSLTCAVSGASFSGYYWSWIRQPPGKLEWIGEINHRGSTTYPNPSLDGRVTISLDTSTNQISL  
KLTSMTAADTAVYYCARTVAGTSDYWGQGTTLTVSS

V<sub>L</sub> region [SEQ ID NO: 39]:

TTLTQSPAFMSATPGDKVSI SCKASRDVDDVNWYQQRPGEAPIFIIEDATTLVPGISPRFSGSGYGTDFTLTINNIDS  
EDAAYYFCLQHDNFPLTFGGGKVEIK

### **Amino acid sequences of variable regions of clone 15.150.24 scFv against loop 6 fragment of human CCR5**

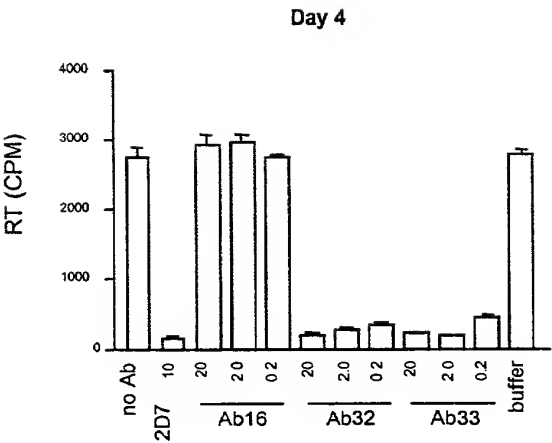
V<sub>H</sub> region [SEQ ID NO: 40]:

QVTLKESGPTLVKPTQTLTLTCTFSGFSRLTTGEGVGWVRQPPGKALEWLALYWDGDKRYSPSLKSRLTITKDTSKKQV  
VLTMTNVDPADTATYYCTHEQYYDTSGQPYYFDFWGQGTTLTVSS

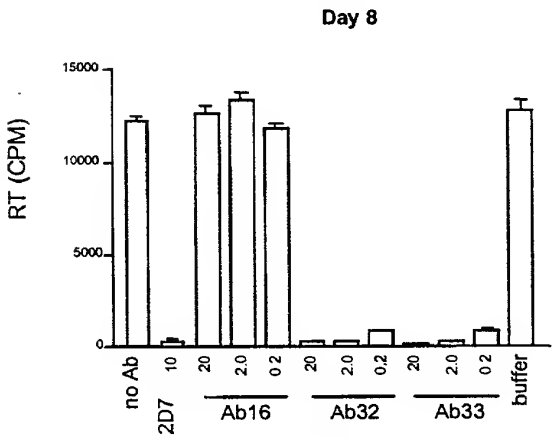
V<sub>L</sub> region [SEQ ID NO: 41]:

NIQVTQSPSSLSASVGDRVTMTCRASQDIRKNLNWYQQKPGKAPKVLIIYDASDLETGIPSRFSGSGSGTDFILTISLQV  
EDIATYYCQSDYLPPLTFGGGKVDIK

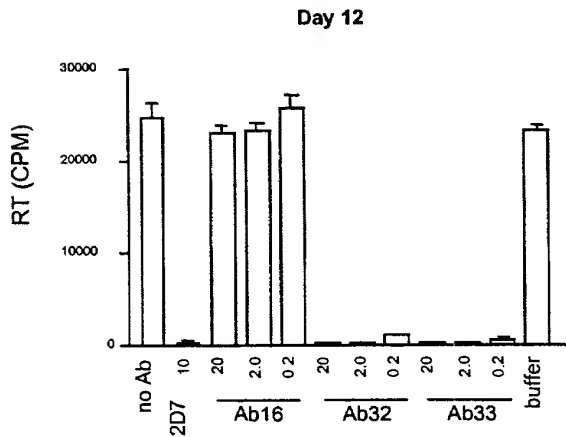
**FIGURE 9A**



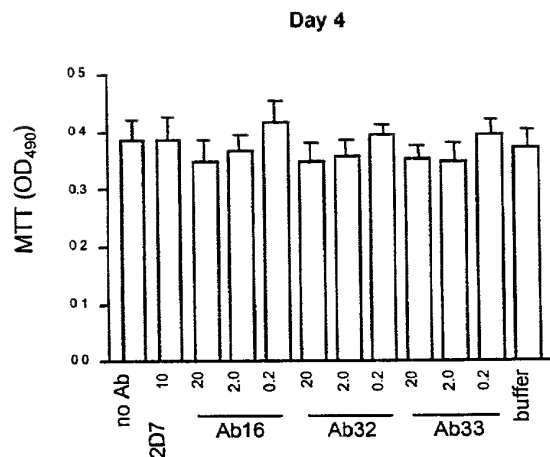
**FIGURE 9B**



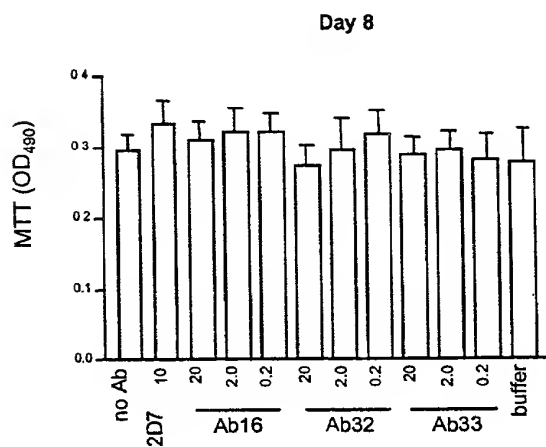
**FIGURE 9C**



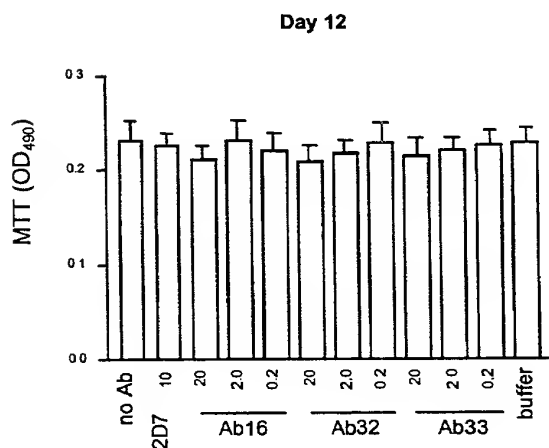
**FIGURE 10A**



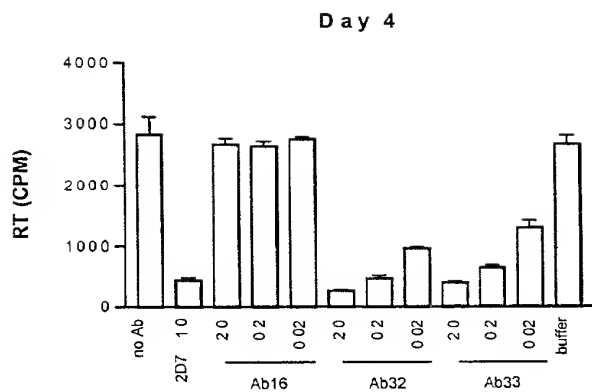
**FIGURE 10B**



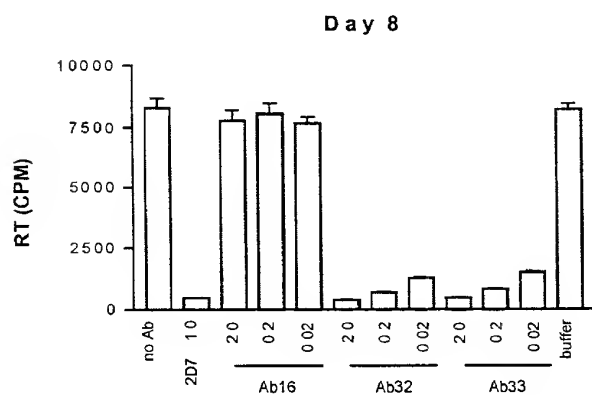
**FIGURE 10C**



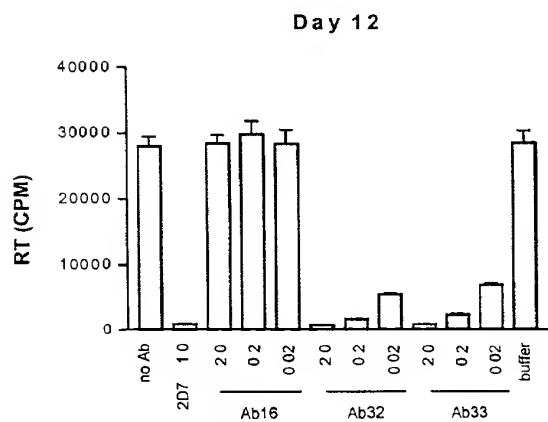
**FIGURE 11A**



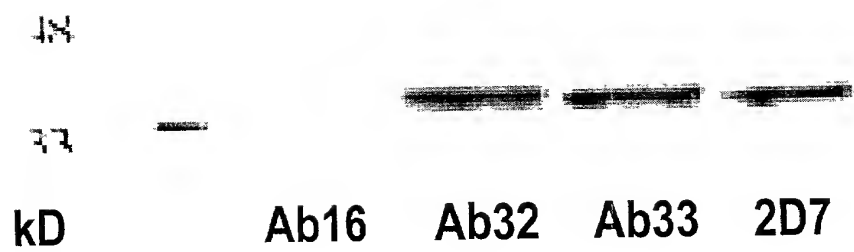
**FIGURE 11B**



**FIGURE 11C**

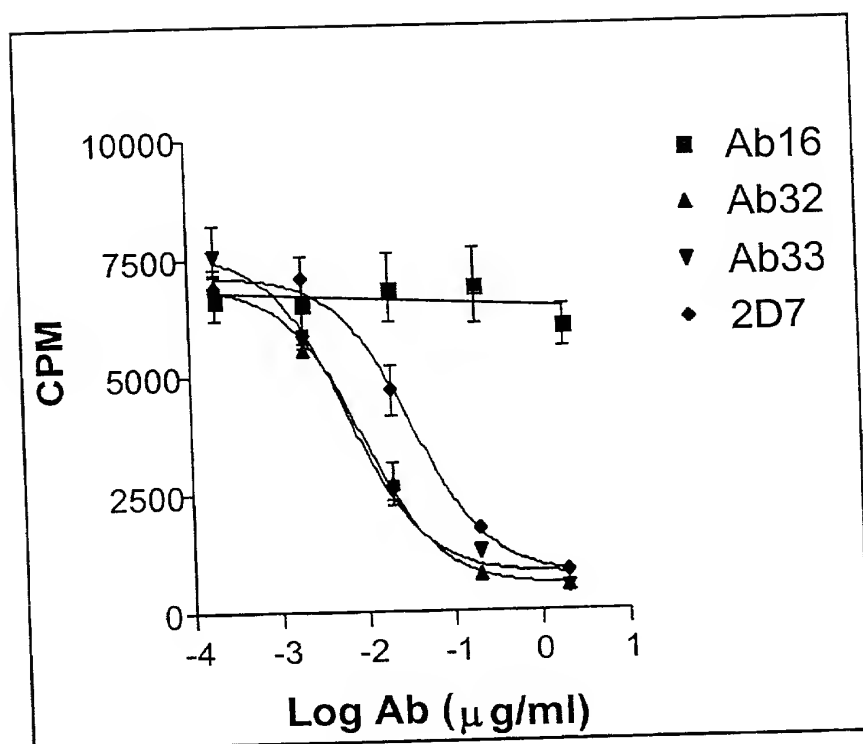


**FIGURE 12**





**FIGURE 13**



**FIGURE 14**

